

## ABSTRACT

An olefin polymerisation titanium catalyst. It comprises a titanium compound and an organoaluminium compound cocatalyst supported on a soluble polysulfone comprising free reactive sulfone groups. The molar ratio of titanium to aluminium is 1-10 : 200 and the weight ratio of titanium to polysulfone is 0.01 - 0.1 : 0.3 - 2.5. The process for preparing the catalyst comprises preparing a supported titanium compound by contacting a solution of a polysulfone in a halogenated or polar solvent with a titanium compound or a solution thereof in a halogenated or polar solvent in an inert atmosphere at a temperature between 10°C and the boiling point of the solvent such that the weight ratio of titanium to polysulfone is 0.01 - 0.1 : 0.3 - 2.5. The supported titanium compound is mixed with an organoaluminium cocatalyst such that the molar ratio of titanium to aluminium is 1-10 : 200.